

**Case 3249*****Lithasia* Haldeman, 1840 (Mollusca, Gastropoda): proposed conservation**

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**Abstract.** The purpose of this application, under Article 23.9.3 of the Code, is to conserve the name *Lithasia* Haldeman, 1840 for a genus of freshwater prosobranch gastropods (family PLEUROCERIDAE) from the eastern United States. This name is already on the Official List of Generic Names in Zoology and has been in continuous use for over 140 years. However, it is threatened by a senior subjective synonym *Ellipstoma* Rafinesque, 1818. The name *Ellipstoma* has had little usage, and then mainly in lists. The names of its included species have never been adopted and suppression of the name *Ellipstoma* is proposed.

**Keywords.** Nomenclature; taxonomy; Gastropoda; PLEUROCERIDAE; freshwater prosobranch gastropods; *Lithasia*; *Lithasia geniculata*; eastern United States.

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**Application to the Commission**

1. Rafinesque (1818b, p. 42) briefly described a new genus *Ellipstoma* and included three new nominal species: *E. gibbosa*, *E. rugosa* and *E. zonalisa*. Hannibal (1912, p. 168) subsequently designated *E. gibbosa* as the type species of *Ellipstoma*. Morrison (1954, p. 363) claimed that Hannibal had misidentified the type species. In addition, Burch (1979, p. 98) stated that 'the identity of *Ellipstoma gibbosa* Rafinesque, 1818 is too doubtful to give nomenclatural validity to *Ellipstoma* Rafinesque, 1818'. The name *Ellipstoma* has had little usage, and then mainly in lists. The names of its included species have never been adopted and *Ellipstoma* does not appear in the online version of *Zoological Record* (1978–2001) or *GeoRef* (1758–2001).

2. Agassiz (1846a, p. 33) misspelled the name as *Ellipsostoma* and attributed it to Rafinesque, 1819 and later (Agassiz, 1846b, p. 136) listed this misspelling. Millard (1997, p. 86; 2001, p. 422) misspelled the genus as *Ellipsoma*.

3. Haldeman (1840, p. 1) described the genus *Lithasia*, and included one new species, *L. geniculata*, the type species of the genus by monotypy. The name *Lithasia* is already on the Official List of Generic Names in Zoology (see Opinion 1195; BZN 38: 259–265, November 1991). In addition, it has been used extensively in studies of the North American gastropod fauna (e.g. Walker, 1918; Morrison, 1940; Goodrich,

1941; Clench, 1965; Burch, 1979; Ahlstedt, 1980; Bogan & Parmalee, 1983; Clarke, 1983; Bogan et al., 1995; Holznagel & Lydeard, 2000; Minton, 2002). The Commission Secretariat holds an additional 33 usage references.

4. Morrison (1954, p. 363) considered *Ellipstoma gibbosa* (the type species of *Ellipstoma* Rafinesque, 1818) to be a senior subjective synonym of both *Melania armigera* Say, 1821 (currently *Lithasia armigera*) and *L. geniculata* (the type species of *Lithasia* Haldeman, 1840). This synonymy means that *Ellipstoma* is a senior subjective synonym of *Lithasia*.

5. In order to avoid undesirable changes in nomenclature and to preserve the stability of generic names in the family PLEUROCERIDAE, we propose that the widely used name *Lithasia* Haldeman, 1840 be conserved under Article 23.9.3 by the suppression of its senior subjective synonym *Ellipstoma* Rafinesque, 1818. *Lithasia* has had considerable usage (see para. 3 above), but *Ellipstoma* has had limited usage in the last 100 years (see para. 1 above) preventing automatic conservation of *Lithasia* under Article 23.9.1.1. *Lithasia* and its type species *L. geniculata* are already on the Official Lists (Opinion 1195; see para. 3 above).

6. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to suppress the generic name *Ellipstoma* Rafinesque, 1818 for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
- (2) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names:
  - (a) *Ellipstoma* Rafinesque, 1818, as suppressed in (1) above;
  - (b) *Ellipsostoma* Agassiz, 1846 (an incorrect subsequent spelling of *Ellipstoma* Rafinesque, 1818);
  - (c) *Ellipsoma* Millard, 1997 (an incorrect subsequent spelling of *Ellipstoma* Rafinesque, 1818).

### Supporting information

1. In 1818, Rafinesque indicated that *Ellipstoma* included four species, but did not list them (Rafinesque, 1818c, p. 107). The following year (1819, p. 424) he listed *E. gibbosa*, emended *E. zonalisa* to *E. zonalis*, and added two more nominal species to *Ellipstoma*: *E. marginula* and *E. vittata* (these are nomina nuda).

2. Haldeman (1841, p. 1) described the genus *Angitrema*, with *Melania armigera* Say, 1821 as the type species by monotypy. Herrmannsen (1852, p. 74) listed *Lithasia* and included only *L. geniculata*. Tryon (1863, 1865b) used *Lithasia* as a subgenus of *Angitrema*, but subsequently elevated *Lithasia* to full generic status (Tryon, 1865c). Pilsbry & Rhoads (1896, p. 496) considered *Angitrema* to be a subgenus of *Lithasia*, a decision that was further supported by Goodrich (1921).

3. Errors regarding the date of publication for *Ellipstoma* are common. Herrmannsen (1846, p. 418) & Scudder (1882, p. 120) both listed *Ellipstoma* (correct spelling), but cited 1819 as the date for the name. They also noted the variant spelling, *Ellipsostoma* (see para. 2 of the Application above). Later Scudder listed only the correct spelling, but again cited the date as 1819 (Scudder, 1884, p. 110). Sherborn (1926, p. 2117) and Neave (1939, p. 214) correctly listed the date of publication for *Ellipstoma* as 1818, and also noted the 1819 reference. Sherborn (1926, p. 2117) also noted Agassiz's misspelling. Stein (1976, p. 38) following Morrison (1954, p. 363)

used *Pleurocera* (*Ellipstoma*) *gibbosa*, but cited the date of publication of the specific name as 1820.

4. Recognition and usage of specific names included in *Ellipstoma* have been inconsistent. Binney (1860, pp. 8–9) listed *E. gibbosa* and *E. zonalis*, but *E. marginula* was listed as *E. marginata*, and all were placed in the genus *Melania*; *E. rugosa* was overlooked. H. & A. Adams (1854, p. 301) used *Melania* and included the misspelling *Ellistoma* as a synonym. Later, Binney (1863, p. 325) listed *E. gibbosa*, *E. zonalis* and *E. rugosa*, but overlooked *E. marginula*. Tryon (1873, p. xxi) reviewed all the preceding work on the family STREPOMATIDAE. Under the genus *Leptoxis* he commented on Rafinesque's 1819 paper and decided not to accept the genus *Ellipstoma* or any of its included species. He later concluded that *Ellipstoma* Rafinesque, 1819 was a senior synonym of *Anculosa* Say, 1821 (Tryon, 1873, p. xxxiv). Both Pilsbry (1917, pp. 110–111) and Goodrich (1929, p. 2) listed *Ellipstoma* and the included species as indeterminate. Fischer (1885, p. 706), Thiele (1929, p. 194) and Wenz (1938, p. 701) listed *Ellipstoma* Rafinesque, 1818 with a question mark under the genus *Anculosa*. Vaught (1989, p. 29) and Millard (1997, p. 86; 2001, p. 422) tentatively (and in the latter case as a misspelling, see para. 2 of the Application above) included it under *Anculosa*. Morrison (1954, p. 363) recognized *Ellipstoma* containing a single species as a subgenus of *Pleurocera*, using *Pleurocera verrucosa* Rafinesque as the type species of *Pleurocera*. Stansbery (1971, p. 11) listed *Ellipstoma gibbosa* Rafinesque, 1818 as rare and endangered with no further comments. Graf's (2001) lexicon not only overlooked all four species included by Rafinesque in *Ellipstoma* but incorrectly credited Binney as author of the taxa. Consistent usage of the name *Ellipstoma* was limited to works by Morrison (1954) and Stein (1976).

5. Rafinesque (1818a, p. 355) described a new genus *Pleurocera* and included six nominal species without descriptions, rendering them nomina nuda. The following year he again described the genus but without including any species (Rafinesque, 1819, p. 423). He later described *P. verrucosa*, the first species with an available name to be included in the genus (Rafinesque, 1820, p. 11). The incorrect subsequent spelling *Pleurocerus* was published in combination with the new specific name *P. acutus* Rafinesque in Blainville, 1824 (p. 236) and subsequently corrected to *Pleurocera acuta* (Rafinesque, 1831, p. 3). Tryon (1864, p. 24) applied the name *Pleurocera* to the group including *P. acuta*. Hannibal (1912, p. 169) subsequently designated *P. verrucosa* as the type species of *Pleurocera* based on a rough sketch in Rafinesque's unpublished '*Conchologia Ohioensis*' that to him clearly represented *Melania nupera* Say, 1829, a junior subjective synonym of *P. verrucosa*. Walker (1917, p. 2) stated that reference to Rafinesque's unpublished '*Conchologia Ohioensis*' was 'entirely inadmissible . . . under any construction of the International Code'. He further argued (p. 7) that 'Hannibal's designation of *verrucosa* as the type of *Pleurocera*, in 1912, [was] entirely immaterial, as it was either invalid or unnecessary . . .' and then (p. 9) formally designated *Pleurocera acuta* 'as the type of the genus *Pleurocera* Raf.'.

6. The problem concerning the type species of *Pleurocera* was resolved by Opinion 1195 (BZN 38: 259–265) fixing it under the plenary power as *Pleurocerus acutus* Rafinesque in Blainville, 1824. The Commission's ruling on the type species of *Pleurocera* allowed *P. verrucosa* to remain in the genus *Lithasia* as it had been considered a species of either *Lithasia* or *Angitrema* (= *Lithasia*).

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).